Exhibit A

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

SAN JOSE DIVISION

IN RE: HIGH-TECH EMPLOYEE)
ANTITRUST LITIGATION)
) No. 11-CV-2509-LHK
THIS DOCUMENT RELATES TO:)
ALL ACTIONS.)
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VIDEO DEPOSITION OF KEVIN M. MURPHY, Ph.D.

VOLUME II

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REPORTED BY: GINA V. CARBONE, CSR NO. 8249, RMR, CCRR

12:03:22 that stationary time series is going to regress.
12:03:25 Q. What I asked you is if there is authority that
12:03:27 you can cite to me that says that there is something
12:03:29 being omitted from the definition of it that I read you.
12:03:33 A. Yeah. I don't have a particular one in mind.
12:03:35 It's just something that economists and econometricians
12:03:39 know. I learned it from Lars Hansen, who is a professor
12:03:45 at Chicago, when I took his class years ago. I mean,
12:03:48 it's a pretty simple concept. I don't think Professor
12:03:51 Leamer would disagree.
12:03:53 Q. So you think that the compensation -- in this
12:03:56 respect, that the compensation of the defendants is
12:03:59 comparable to the weather?
12:04:02 A. In a statistical sense, I think it has some of
12:04:05 the same properties. That it's going to vary.
12:04:08 I mean, a better analogy is the salesman
12:04:11 example that I gave in the report. That there are
12:04:15 components that are going to move compensation. I'm in
12:04:18 a group. We have a tremendously successful year. We
12:04:22 develop Google Chrome this year. We get big bonuses
12:04:25 because we develop Google Chrome, you know. Great
12:04:29 project, great idea, things came out really well.
12:04:32 We're smart guys, probably next year we're
12:04:35 going to do something good, but probably not going to do
12:04:38 that again. So on average you are probably not going to

get as good of stock grants, bonuses that you got this year.

That's all I'm saying. That's all you need. You need that when you have a really good year, the next year, on average, won't be quite so good. And when you have a really bad year, on average it won't quite be so bad.

That's really what mean reversion is about. And you can say, well, that's because there is randomness. But randomness connotes something that's sort of like rolling dice. It's really just that there are things that aren't necessarily repeated year after year.

Q. So let's look at your salesman example, which is paragraph 46. Do you want to read it before answering questions about it or are you ready to go?

A. I understand it.

Q. So in this example, you lay out the possibility that the salesman is paid $75,000, $100,000, or $125,000 based on whether it's a bad, average or good year.

Are there any salesmen in the technical class?

A. No. I didn't -- but if you thought about a group or a project that's being compensated for this, you pay for performance. You are getting compensated based on this year's performance.

12:05:58 That would have much of the same features. Because a salesman is just the classic example of somebody being paid on performance. He's getting paid by how many he sells.

12:06:08 But pay for performance, more generally, base your compensation on some form of what you produced this year. And there are elements of human performance that are not permanent. It's all you need.

12:06:20 Q. Well, actually what you say is -- I think you say they're random, don't you? Human performance is random?

12:06:28 A. There are random elements. But the random elements are not in a sense of, like, rolling dice. They're just things that don't necessarily repeat themselves. We work on a project. It turns out to be really successful. We work just as hard next year. We're just as smart as we were, but it doesn't always work out that way.

12:06:45 I mean, I look at my papers I publish. Right? I work on a paper, comes out good. I'm very successful one year. Next year I work on another paper. I didn't go into it trying to produce a lousy paper, just turns out it didn't come out as good. My performance varies year to year.

12:07:03 Baseball player. Goes up, first half of the

12:07:06 season he's not trying to strike out, he's trying to get
12:07:10 a hit every time he's up at the plate. He bats 320 in
12:07:13 the first half of the season. Second half of the season
12:07:16 he bats 280. Maybe he's just as talented in the second
12:07:20 half. If he's a 280 hitter and he hits 320 in the first
12:07:24 half, chances are he ain't going to hit 320 in the
12:07:27 second half. If he's a 340 hitter and he hits 320,
12:07:30 chances are he's going to get better in the second half.
12:07:33 That's all we're talking about.

12:07:36 Q. And using your baseball example, that's not due
12:07:38 to random elements?

12:07:39 A. I mean, you could say it's due to random, but
12:07:42 random has this idea particularly when it comes
12:07:45 compensation. This is what Leamer kept talking about.
12:07:47 Well, nobody likes choosing compensation at random, but
12:07:50 it's not that people are choosing compensation at
12:07:51 random, it's that your compensation is based on
12:07:54 performance. And performance, yeah, you could say it
12:07:56 has a random element.

12:07:58 But what's important is that that random
12:08:00 element isn't permanent. If it were permanent, then you
12:08:03 wouldn't get reversion to the mean. If every time you
12:08:06 did better, that became the new norm, and then you
12:08:08 either went up or down from there. And then you did
12:08:11 better or worse, and it's up or down from there, that

12:08:13 would be a random walk. Wouldn't have any reversion to
12:08:16 the mean. What matters is that there is temporary
12:08:18 elements to performance.
12:08:22 Q. Is there anybody in the technical class who's
12:08:25 paid the way that you outlined in your example in
12:08:28 paragraph 46?
12:08:29 A. I think -- yes. I mean, not as -- not as a
12:08:32 salesman, but they're paid based on performance.
12:08:36 Q. Is there anybody in the technical class who
12:08:38 receives a bonus of three different possible amounts
12:08:42 based on whether they have a bad, average, or good year?
12:08:46 MR. HINMAN: Object to the form.
12:08:47 THE WITNESS: No. This is intended to be an
12:08:49 illustrative example to show you how it works. And the
12:08:53 way examples work is you have an example that to make it
12:08:56 simple. So you want to make it so it's easy for the
12:08:58 reader to actually follow what you are saying. That's
12:09:02 why you use examples, because they're intend to be
12:09:06 understandable.
12:09:08 MR. GLACKIN: Q. Can you give us an
12:09:09 example of an actual class member that would
12:09:12 demonstrate your point?
12:09:14 A. I don't have one handy. We looked at tons of
12:09:16 them. I mean, if you look at the change in compensation
12:09:19 over time, you can see that bonuses tend not to be

I, Gina V. Carbone, Certified Shorthand Reporter licensed in the State of California, License No. 8249, hereby certify that the deponent was by me first duly sworn and the foregoing testimony was reported by me and was thereafter transcribed with computer-aided transcription; that the foregoing is a full, complete, and true record of said proceedings.

I further certify that I am not of counsel or attorney for either of any of the parties in the foregoing proceeding and caption named or in any way interested in the outcome of the cause in said caption.

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In witness whereof, I have hereunto set my hand this day: July 6, 2013.

_______ Reading and Signing was requested.

_______ Reading and Signing was waived.

___X___ Reading and signing was not requested.

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GINA V. CARBONE

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